



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/526,893

03/04/2005

Shingo Kawasaki

983.44776X00

7340

20457

7590

04/17/2007

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-3873

EXAMINER

BERHANU, ETSUB D

ART UNIT

PAPER NUMBER

3768

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

04/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/526,893	Applicant(s) KAWASAKI ET AL.	
	Examiner Etsub D. Berhanu	Art Unit 3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 11 and 13 is/are rejected.
- 7) ☒ Claim(s) 2-10, 12 and 14-17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/4/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claims 1, 2, 4, 7, 8 and 14 are objected to because of the following informalities: the term - - a - - should be inserted between the terms "which" and "principal" in line 15 of claim 1; the term "where" in line 19 of claim 1 should be amended to read - - which - -; the term - - a - - should be inserted between the terms "which" and "principal" in line 17 of claim 2; claim 4 should be dependent on claim 3 in order to provide proper antecedent basis with regards to the phrase "the plurality of respective irradiation use optical fibers" in lines 4-5 of the claim; the term - - and - - should be inserted between the phrases "signals," and "a signal" in line 10 of claim 4; "is" in line 3 of both claims 7 and 8 should be amended to read - - are - -; the term - - to - - should be inserted between the terms "respect" and "the" in line 22 of claim 14. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 recites the limitation "the graph" in 7. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Maki et al.'909 (USPN 5,803,909).

Figure 2 of Maki et al.'909 discloses a living body photometric apparatus, the apparatus comprising: a light source portion (2a-2d) for irradiating light beams having predetermined frequencies to a plurality of positions in a measurement region of a subject, an optical measurement portion (8a-8f) for measuring light beams brought about by the irradiated light beams at a position near the light beam irradiation position and for determining measurement data at a plurality of measurement points from the measured light beams, a signal processing portion (11) for calculating from the plurality of measured data at least one stimulation task signal of which a principal component is a signal brought about by the stimulation task given to the subject (col. 3, lines 42-52, col. 8, line 58 – col. 9, line 8, and Figures 4 and 5 and descriptions thereof), means for identifying a measurement point or a region which responds most to the stimulation task by making use of the at least one stimulation task signal calculated by the signal processing portion (see Figure 8 and description thereof), and display means (13) for displaying signals processed by the signal processing portion. Figure 3 and the description thereof describe an embodiment of the living body photometric apparatus wherein the signal processing portion performs imaging processing of the measurement data from the optical measurement portion (col. 9, line 32 – col. 10, line 2) and Figures 6-8 show the results of the imaging processing wherein principal component analysis for the plurality of measured data is performed and a representative signal which most reflects a living body reaction when a stimulation task is given is extracted (col. 11, line 52 – col. 12, line 58).

Allowable Subject Matter

6. The following is a statement of reasons for the indication of allowable subject matter: The Applicant has invoked 112, 6th paragraph in claims 2 and 14. None of the prior art teaches or suggests,

Art Unit: 3768

either alone or in combination, a living body photometric apparatus comprising either: means for calculating an occupying ratio of a plurality of respective measured data in a stimulation task signal, wherein the occupying ratio is an index showing how much a representative signal extracted via a principal component analysis expresses a feature contained in measured data, means for calculating contribution rates of respective measurement signals with respect to a representative signal and means for separating the calculated contribution rates of the respective measurement signals for right and left temporal lobes, wherein the “means for” include the corresponding structures discussed in the Specification in the following sections: page 5, line 23 – page 6, line 6, page 20, line 18 – page 25, line 10 and page 27, line 6 – page 29, line 184, in combination with the other claimed elements.

7. Claims 2-10, 12 and 14-17 would be allowable if rewritten or amended to overcome the objections set forth in this Office action.

8. Claim 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Maki et al.'394 (WO 00/49394), Yamashita et al.'763 (USPN6,542,763) and Yamashita et al.'309 (USPN 6,240,309) all disclose a living body photometric device that calculates a load signal from a difference between a measured signal and a predicted non-load signal and investigates activity in a functional area of the brain by locally measuring change in a given functional area of the brain, wherein the device comprises a light source portion for irradiating light beams having predetermined frequencies to a plurality of positions in a measurement area of a subject, an optical measurement portion for measuring light beams from the irradiated light beams and for determining measurement data at a plurality of

Art Unit: 3768

plurality of measurement points, a signal processing portion for performing an imaging processing and for calculating from the plurality of measured data at least one stimulation task signal, means for identifying a measurement point or a region which responds most to a stimulation task and display means for displaying signals processed by the signal processing portion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etsub D. Berhanu whose telephone number is 571.272.6563. The examiner can normally be reached on Monday - Friday (Every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eleni Mantis-Mercader can be reached on (571)272-4740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EDB

ERIC F. WINAKUR
PRIMARY EXAMINER
